

REMARKS

Reconsideration and allowance of the present application are requested. Claims 1-17 remain pending in the application. By the foregoing amendment, claims 1 and 12-15 are amended.

Applicants note with appreciation the Examiner's indications in numbered paragraphs 6 and 7, page 9 of the Office Action, that claims 16 and 17 contain allowable subject matter.

In numbered paragraph 2, page 2 of the Office Action, independent claim 1, along with various dependent claims, is rejected as being anticipated by U.S. Patent 6,594,133 (Schmidt et al.). In numbered paragraph 4, page 5 of the Office Action, dependent claims 6-8 are rejected as being unpatentable over the Schmidt et al. patent and U.S. Patent 5,684,665 (Rudy). In numbered paragraph 5, page 6 of the Office Action, dependent claims 12-15 are rejected as being unpatentable over the Schmidt et al. patent and in view of U.S. Patent 6,678,139 (Greuter et al.). These rejections are respectfully traversed.

Applicants have disclosed a pluggable electrical apparatus such as a surge arrester. As exemplified in Applicants' Figs. 1 and 2, a pluggable electrical apparatus (A) can have an axially symmetrically formed housing (1) with a housing axis running in the plugging direction, a flange (5) for fastening the apparatus housing (1) on a housing (30) of a high-voltage installation (H), and with an axially symmetrical active part (6) with an axially routed circuit, including a plug-in contact (8), a grounding terminal (9) and a non-linear resistance element (10) connected in between, and with an axially symmetrical insulator (13), which forms an insulating cone (14) and surrounds the non-linear resistance element and an electrical

connection (11) with respect to the plug-in contact (8). The flange for fastening is formed into the apparatus housing (1) and cannot be displaced with respect to the housing (1), which is electrically conductive. The active part (6) is mounted displaceably in the axial direction in the apparatus housing (1) and held with a prestressing force with respect to the apparatus housing (1) before a plug-in connection is formed.

As disclosed by the Applicants, the apparatus housing 6 can be fastened on a high-voltage installation H without having to exert an excessive force. An electrically conducting connection between a circuit of the apparatus A and a conductor 35 of the high-voltage installation H can be achieved with simple means by reducing the prestress. This involves displacing the active part 6 until a plug-in contact 8 forms a plug-in connection with a mating plug-in contact 32 of the installation H. An insulating cone 14 of the active part 6 bears with a predetermined force against a mating insulating cone 33 of the installation H. The resulting bearing force can be set such that gaps leading to partial discharges at the boundary surface of the insulating cones 14, 33 are avoided. Since the bearing force can easily be kept constant and, moreover, acts in the interior of the apparatus housing 1, a constant contact pressure is ensured and, moreover, changing of the contact pressure from the outside is prevented.

The foregoing features are broadly encompassed by the independent claim 1. For example, claim 1 recites a pluggable electrical apparatus, in particular a surge arrester, with an axially symmetrically formed housing with a housing axis running in the plugging direction, a flange for fastening the apparatus housing on a housing of a high-voltage installation, and with an axially symmetrical active part with an axially

routed circuit, including a plug-in contact, a grounding terminal and a non-linear resistance element connected in between, and with an axially symmetrical insulator, which forms an insulating cone and surrounds the non-linear resistance element and an electrical connection with respect to the plug-in contact, wherein the flange for fastening is formed into the apparatus housing, the apparatus housing being electrically conductive, and wherein the active part is mounted displaceably in the axial direction in the apparatus housing and held with a prestressing force with respect to the apparatus housing before a plug-in connection is formed.

The Schmidt et al. patent is assigned to ABB Schweiz AG. The Schmidt et al. patent claims priority of DE 199 42 633. The Schmidt et al. patent is related to EP 1083 579 A2, published on March 14, 2001 in German language. Based on the English language disclosure in U.S. Patent 6,594,133, the Schmidt et al. patent discloses a surge arrester having a cylindrically symmetrical housing (abstract). As shown in Figs. 1 and 2, the Schmidt et al. patent discloses that the insulator 13, therefore the active part 8, are fixedly secured to the housing 10 by means of a polymerization process (col. 3, lines 40-45). Moreover, instead of being formed into the cylindrically symmetrical housing, the flange 17 as disclosed in the Schmidt et al. patent is displaceably arranged on an end section 14 of the housing and can be displaced against the force of a spring 18, which is arranged between an expanded area 16 of the section 14 and the flange 17 (col. 3, lines 62-67). Accordingly, the Schmidt et al. patent does not teach or suggest, among other features, "the flange for fastening is formed into the apparatus housing, the apparatus housing being electrically conductive, and wherein the active part is mounted displaceably in the axial direction in the apparatus housing and held with a prestressing force with

respect to the apparatus housing before a plug-in connection is formed," as recited in claim 1.

The Rudy patent fails to overcome the deficiencies of the Schmidt et al. patent. The Rudy patent discloses a surge arrester comprising an active part including electrical components 60, 62. The active part is arranged undisplaceably in an insulating housing 58 (e.g., col. 3, lines 8-16). The Rudy patent teaches away from the insulating housing 58 being electrically conductive, and the active part being mounted displaceably in the axial direction. Accordingly, the Rudy patent does not teach or suggest, "the flange for fastening is formed into the apparatus housing, the apparatus housing being electrically conductive, and wherein the active part is mounted displaceably in the axial direction in the apparatus housing and held with a prestressing force with respect to the apparatus housing before a plug-in connection is formed," as recited in claim 1.

The Greuter et al. patent fails to overcome the deficiencies of the Schmidt et al. patent. The Greuter et al. patent discloses a bushing which is shown in Figs. 7a-c in the form of a cable plug connection. Figs. 7a-c show that a shielded cable section with a current conductor 1 is centrally positioned in a shielding 27. The shielding is electrically conducting and comprises a flange which is fixedly secured to a grounded housing of a transformer 31. Between the shielding 27 and the central conductor 1 are arranged in a coaxial manner a column of hollow varistor elements 9 and two hollow insulators 5, 26. One end of the varistor column 9 is electrically connected to the current conductor 1, and the other end is connected to the shielding 27. However, the bushing as disclosed in the Greuter et al. patent does not relate to the pluggable electrical apparatus as claimed. The Greuter et al. patent does not

teach or suggest, "the flange for fastening is formed into the apparatus housing, the apparatus housing being electrically conductive, and wherein the active part is mounted displaceably in the axial direction in the apparatus housing and held with a prestressing force with respect to the apparatus housing before a plug-in connection is formed," as recited in claim 1.

The Schmidt et al. patent, the Rudy patent, and/or Greuter et al., considered individually or in the combination relied upon by the Examiner, fail to teach or suggest that a flange for fastening is formed into an apparatus housing, the apparatus housing being electrically conductive, and that the active part is mounted displaceably in the axial direction in the apparatus housing and held with a prestressing force with respect to the apparatus housing before a plug-in connection is formed, as recited in claim 1.

Thus, independent claim 1 is allowable over the Schmidt et al. patent, Greuter et al. patent, and the Rudy patent. The remaining claims depend from the aforementioned independent claims and recite additional advantageous features which further distinguish over the documents relied upon by the Examiner. As such, these claims are also considered allowable.

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the application is in condition for allowance and a Notice of Allowance is respectfully solicited.

Respectfully submitted,

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